

# Making Connections

8th Biennial  
Bay-Delta Science Conference

Call for Abstracts

October 28-30, 2014 Sacramento Convention Center



**Abstract Deadline:  
June 11, 2014**

<http://scienceconf2014.deltacouncil.ca.gov>

## The Biennial Bay-Delta Science Conference

is a forum for presenting technical analyses and results relevant to the Delta Science Program's mission to provide the best possible, unbiased, science-based information for water and environmental decision-making in the Bay-Delta system. The goal of the conference is to provide new information and syntheses to the broad community of scientists, engineers, resource managers, and stakeholders working on Bay-Delta issues. The organizers of this 8th Science Conference are seeking presentations that support this goal.

The conference program will feature oral and poster presentations that provide scientific information and ideas relevant to the topic sessions listed below. The conference theme this year is "Making Connections." Management of the Bay-Delta Ecosystem is at a critical crossroads with political and regulatory mandates seeking new ways to manage water exports while restoring landscape-level ecosystem attributes and functions. To support these activities requires that scientists make connections among external drivers, management actions, and ecosystem responses. Perhaps more critical, the scientific and management communities must make connections to ensure a two-way flow of needs, resources, ideas, and understanding.

In addition to general sessions and poster topics based on the abstracts received, conference participants may propose special oral sessions or poster clusters on topics of particular importance to the Bay-Delta. Instructions for proposing a special session or poster cluster appear after the Conference Session Topics. **All abstracts for oral sessions (special and general) and posters (including clusters) are due June 11, 2014.**

If you have questions about the oral presentation part of the program, please contact the Conference Program Co-Chairs Steven Culberson ([steven\\_culberson@fws.gov](mailto:steven_culberson@fws.gov)) and Louise Conrad ([lconrad@water.ca.gov](mailto:lconrad@water.ca.gov)). If you are interested in serving as chair of a general session, please contact Steve or Louise. Chair assignments will be made when the final list of conference sessions has been determined.

For questions on posters or poster clusters, please contact the Poster Co-Chairs: Darcy Austin ([dgaustin@usgs.gov](mailto:dgaustin@usgs.gov)) and Josh Israel ([jaisrael@usbr.gov](mailto:jaisrael@usbr.gov)).



Delta Science Program  
Delta Stewardship Council



# Making Connections



## Conference Session Topics

### Fish Biology, Ecology and Protection—

Science that addresses basic life history, behavior and population structure of Bay-Delta fishes and the factors that affect their distribution and abundance. Suggested topics include population dynamics, fishery management, migration and spawning behavior, trophic ecology, physiological responses to key environmental stressors, and science-based management strategies to protect fish populations. Presentations on engineering to support fish protection goals are also invited. Specific topics could include ecosystem restoration activities, the use of fish barriers, fish screening technologies, fish passage facilities, and environmental water management.

**Flood Management—**Science that helps to improve flood management, including the role of levees in ecosystem restoration, and different approaches for protection of habitats, water quality, water supplies, agricultural lands, and infrastructure in a changing environment.

**Food Webs—**Science that provides new insights into ecological and physical processes governing and connecting food webs in the Bay-Delta. Examples of topics include effects of variable and changing water quality from contaminants, sediment, nutrient inputs, species invasions, and climate change effects. Science that explains how one or more of these factors influences Bay-Delta food webs is of particular interest.

**Global Perspectives—**Science that highlights connections or discrepancies between regional and larger-scale processes and their joint effects on the Bay-Delta ecosystem and management. Of particular interest is research that compares Bay-Delta systems and processes to those in other areas of the globe.

**Human Consequences—**New perspectives that assess the potential social, economic, and public health effects of actions and solution strategies implemented in the Bay-Delta system. Specific topics include water resource economics, local partnerships, conflict resolution strategies, watershed groups, and environmental law in the Bay-Delta and its watersheds.

**Integrative Applied Science—**Science that translates understanding of ecological functions and processes into effective science-based management strategies for the Bay-Delta system. Specific strategies include science-based decision-support tools, collaborative approaches, effective communication strategies, use of conceptual models, and adaptive management.

**Modeling—**Science that employs numeric models to address complex resource management questions. Specific examples include studies that couple hydrodynamic, sediment, particle tracking, and water quality models with ecosystem models such as those for native species and Bay-Delta and riverine food web dynamics. Modeling applications might also include determining flow requirements needed to protect aquatic species, understanding nutrient and contaminant sources, transport and fate, and assessing potential outcomes of water and fish management alternatives.

**Physical Processes—**Science that improves the understanding of how physical processes such as climate change, hydrodynamics, sediment transport, and geomorphology may affect future actions within the Bay-Delta system.

**Species and Communities—**Science that advances the utility of monitoring programs, understanding and management of key species and their ecological functions and requirements in the Bay-Delta and its watershed. Key species include species of special concern, numerically dominant species, and nonnative invasive species.

**Sustainable Habitats and Ecosystems—**Science that provides new insights into the ecological and physical processes governing and connecting habitats in the Bay-Delta and its watershed. Lessons learned regarding more effective ecosystem restoration, protection, management and sustainability of riparian habitat, river channels, floodplains, flooded and in-channel islands, levees, wetlands, and terrestrial habitats. Topics could describe aquatic, terrestrial, or human ecosystem sustainability and the kinds of landscape characteristics that can be restored to re-introduce appropriate processes at the scales needed to sustain habitats.

**Water and Sediment Quality—**Science that advances understanding and management of key environmental and drinking water quality constituents and associated biogeochemical processes, and their ecological and public health effects in the Bay-Delta and its watersheds. Key water and sediment quality constituents include inorganic contaminants, organic contaminants, organic matter, salinity, sediment, nutrients, and dissolved oxygen.

### Water Supplies and Instream Flows—

Science that advances water supply management strategies to improve water supply and stream flow reliability. Management strategies may involve operation of water conveyance facilities, groundwater, water use efficiency, water demand predictions, water transfers, and water storage options.

**Watersheds—**New perspectives to evaluate, plan, restore, and organize land and other resource uses within a watershed to restore ecological health and improve water management by working with the community at a watershed level.

## Oral Presentations

The oral presentations are expected to advance our state of knowledge by focusing on new findings, models, and syntheses of past and ongoing studies that are relevant to the management or scientific understanding of the Bay-Delta rather than on project or program descriptions or summaries of planned studies. Because we anticipate that requests for oral presentations will exceed the available timeslots, the Program Committee will assign oral presentations based on technical merits of the abstract, including relevance of the topic, presentation of results, and importance of the findings. For that reason, abstracts should provide a clear description of the contribution, including their relevance to Bay-Delta management, as described above. Use of such phrases as "results will be discussed" is discouraged.

## Special Oral Sessions

There will be a limited number of special sessions devoted to topics of particular interest to the Bay-Delta community. Proposals for special oral sessions, as well as for abstracts for individual talks in the special sessions, must be submitted by the abstract submission



deadline (June 11, 2014). Special oral session proposals are to be submitted using a separate form available on the conference website and require a session title, the name of the session chair(s), a short (<200 words) description of the session topics (including relevance to Bay-Delta management) and a list of proposed presentation titles and authors. Each presentation proposed in the special oral session must have its own submitted abstract by the abstract deadline. Both submissions are required for special oral session proposals.

The special session presentations should be well integrated and representative of the current body of research on the topic. The Program Co-Chairs may also work with the Special Session Organizer (the person submitting the proposal) to develop the final configuration, including the possible addition of related talks from the pool of general submissions. Sessions will be scheduled as two morning and two afternoon blocks with five 20-minute talks in each block, and may include a panel discussion in place of one or more talks. Proposals including discussion panels should include the length of the discussion period (must be in 20-minute intervals). The length of the proposed special session can range from ¼ of a day to a full day (1–4 session blocks). In case a special session proposal cannot be accepted, submitted abstracts will be considered for inclusion in other conference sessions.

Presentations on "management-relevant science" related to the session topic are encouraged, but not required. Examples of topics from past Bay-Delta Science Conferences include: Pelagic Organism Decline; The Natural Delta; Suisun Marsh; Cache Slough Complex; South Bay Salt Pond Restoration; Bay-Delta Phytoplankton Trends and Drivers; Microcystis; Carbon Sequestration and Gas Fluxes in the Bay Delta; Multi-dimensional Modeling of the Bay-Delta; Addressing Climate Change in Delta Planning and Management; Sediment Transport Modeling and Observation in the Sacramento-San Joaquin Delta; and Technical Approaches to Suggest Delta Flow Standards.

## Poster Presentations

The poster session is a very important part of the Science Conference. Posters will be displayed throughout the conference, and will be featured during social sessions on the evenings of the first and second days of the conference to encourage open discussion between the presenters and conference attendees. A major component of the poster session will be presentations of results from projects funded by the Delta Stewardship Council Science Program and the Ecosystem Restoration Program. Posters may also include project/program summaries relevant to Bay-Delta issues, as well as reports of work

## The Brown-Nichols Science Award

This award was established to recognize the contributions of scientists for their significant research and active involvement in facilitating the use of science for managing the San Francisco Estuary and watershed. The award recipient will be recognized during the plenary session at the 2014 Bay-Delta Science Conference. The deadline for nominations is June 30, 2014. Additional information, including nomination requirements can be found at: <http://scienceconf2014.deltacouncil.ca.gov>.

planned or in progress. Presenters should indicate the theme most pertinent to the subject of the poster from the list on the abstract submittal form, as the posters will be arranged by theme. Inclusion of a statement in the text of the abstract and poster on the relevance of the study's findings to Bay-Delta management is strongly encouraged.

## Poster Clusters

Similar to special oral sessions, there is the opportunity to organize groups of posters on a particular topic and to have those posters grouped together. Poster clusters require a chairperson to organize the cluster and to prepare an overview poster that synthesizes information from the individual posters to provide larger-scale conclusions or applications of results. The posters should be well-integrated and complementary as a cluster. Including a diversity of perspectives is encouraged. Proposals for poster clusters must be submitted by the abstract submission deadline of June 11, 2014. Proposals are to be submitted using a separate form available on the conference website and require the cluster title, the name of the cluster chair(s), a paragraph (<200 words) describing the content and focus of the cluster including the relevance of this topic to Bay-Delta management, as well as a list of poster titles and authors. Each presentation proposed in the poster cluster must have submitted its own abstract by the abstract deadline. Both submissions are required for poster cluster proposals.

## Student Awards

Awards will be given for the best student oral and poster presentations during the conference. Please indicate student status on the abstract form. To qualify for a student award, you must have carried out the presented work while you were a registered student, and you must make the presentation yourself.

## Abstract Requirements

All presenters (oral and poster) must submit an abstract using the online form accessible through the conference website address provided below. There is a 300-word limit on the abstract text. Please fill in all of the blanks on the form, including selection of the appropriate theme or special session, any special projection equipment needs, and your preference for an oral or poster presentation. Depending on the number and content of abstracts submitted, the Program Chairs may move some of the requested oral presentations into the poster session and vice versa. Incomplete or poorly written abstracts and those that are not relevant to Bay-Delta issues will not be accepted.

**Abstract Content:** A complete abstract should include the following four components:

- **Problem Statement:** What problem are you trying to solve?
- **Approach:** How did you go about solving or making progress on the problem?
- **Results:** What are your main findings?
- **Conclusions/Relevance:** What are the scientific and management implications of your findings, including the relevance of your findings to Bay-Delta management? What insights do your findings provide towards ecosystem sustainability in the near and long-term futures? Authors are strongly encouraged to include this relevance statement in the abstract.

## Questions?

Questions about the technical program or the abstract submittal process should be directed to the Program Co-Chairs, **Steven Culberson** ([steven\\_culberson@fws.gov](mailto:steven_culberson@fws.gov)) and **Louise Conrad** ([jlconrad@water.ca.gov](mailto:jlconrad@water.ca.gov)).

Questions on posters or poster clusters should be directed to the Poster Co-Chairs: **Darcy Austin** ([dgaustin@usgs.gov](mailto:dgaustin@usgs.gov)) and **Josh Israel** ([jaisrael@usbr.gov](mailto:jaisrael@usbr.gov)).

Questions about other aspects of the conference should be directed to the Conference Co-Chairs: **Lenny Grimaldo** ([lenny.grimaldo@icfi.com](mailto:lenny.grimaldo@icfi.com)) and **Wim Kimmerer** ([kimmerer@sfsu.edu](mailto:kimmerer@sfsu.edu)).

Questions about the Brown-Nichols Award should be directed to the Award Chairs: **Lauren Muscatine** ([ldmuscatine@ucdavis.edu](mailto:ldmuscatine@ucdavis.edu)) and **Michelle Shouse** ([mkshouse@usgs.gov](mailto:mkshouse@usgs.gov)).

## Absolute Abstract Deadline WEDNESDAY, June 11, 2014

The form for online abstract submittal is located at the following website address: <http://scienceconf2014.deltacouncil.ca.gov>

Information on the Delta Science Program is available at <http://www.deltacouncil.ca.gov/science-program>